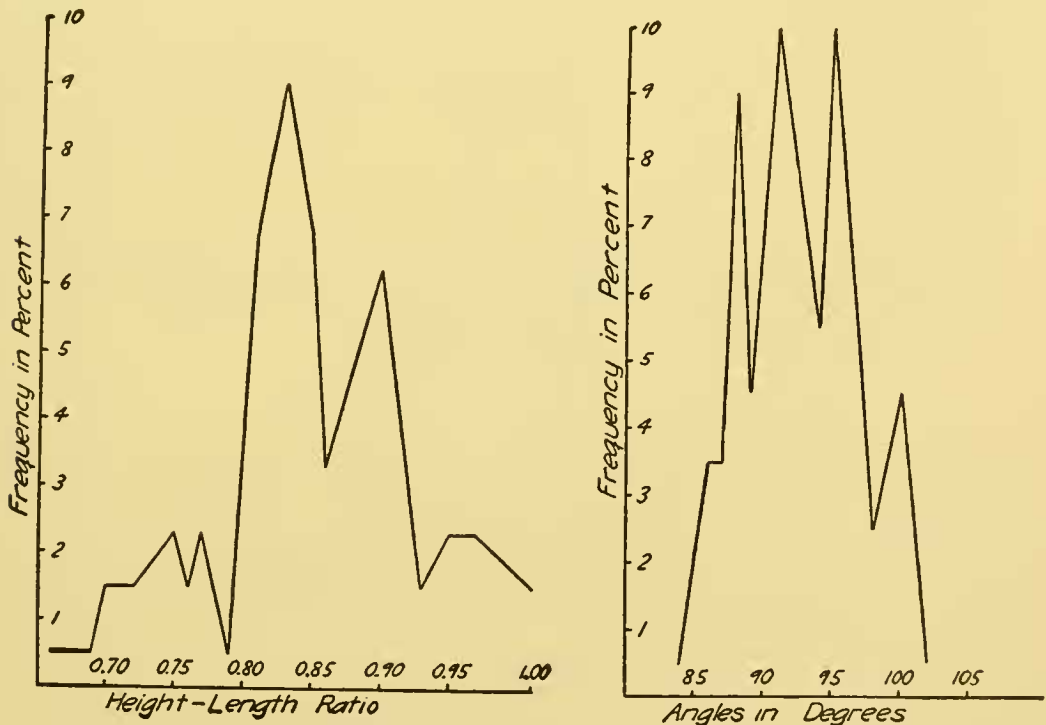


CORBICULA COWLITZENSIS WEAVER

BY RUTH E. COATS
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In a publication by C. E. Weaver entitled "Tertiary Paleontology of Western Washington" (Wash. Geol. Sur. Bull. No. 15, 1912, pp. 32, 33, pl. 14, fig. 117 & 119, pl. 15, fig. 131, 132, 135), there are described two new species of *Corbicula* from the Cowlitz Eocene of Washington from Coal Creek, Cowlitz County at U.W. Locality 8. The two new species were differentiated mainly by the variations in the shape of the shell and in the situation of the umbones. Concerning *Corbicula cowlitzensis*, Weaver states "Shell subtriangular in outline, nearly one-fourth longer than high; beaks prominent, elevated and situated about two-fifths the length of the shell from the anterior end." Concerning *Corbicula eufalensis*, he states "Shell sub-circular, about one-fifth longer than high and very thick; beaks very prominent and situated nearly central, sometimes anterior to the center."

As evidence that these so-called new species are probably the same species, the accompanying graphs are submitted. The



shells for the height-length ratios were measured with comparative accuracy with a micrometer. The graph is plotted against the frequency in per cent of the total number of specimens (132). The greater number of specimens indicate relatively higher shells, with the highest number having a ratio of 0.83. The slight variation in outline, which might not be shown by the dimensions, can not be shown well by a graph. However this was observed to have a corresponding distribution and would doubtless fit the same sort of curve.

For the second graph the angle of the umbone was measured by a protractor. Its measurement may be illustrated as follows: Suppose an angle be drawn, the apex touching the umbone, with the legs tangential to the most anterior and posterior extremities of the shell. Errors due to equipment or personal judgment do not exceed four degrees, and since they are not constant they may be ignored. The percentages represented in the graph reach the highest at 91 and 95.

These two graphs show that there is a great variation in the shape of the shell and in the position of the umbones; therefore it is suggested that the species *C. eufalensis* be combined with the species *C. cowlitzensis*, and that the Corbiculas from the type locality henceforth be called *C. cowlitzensis*. If these species were ever to be distinguished again, it would have to be under some characteristic other than that of shape and position of the umbone.

THREE NEW SECTIONS AND RECTIFICATIONS OF SOME SPECIFIC NAMES IN THE PECTINIDAE

BY LEO GEORGE HERTLEIN

During studies of the genera and species of the recent and fossil Pectinidae, it was noticed that several species were in need of rectification of their nomenclature. Three new sections are also proposed.

SWIFTOPECTEN Hertlein

Swiftopecten Hertlein, Proc. Calif. Acad. Sci., Ser. 4, Vol. 21, no. 25, 1935, p. 319. Type: *Pecten swiftii* Bernardi, Journ. de